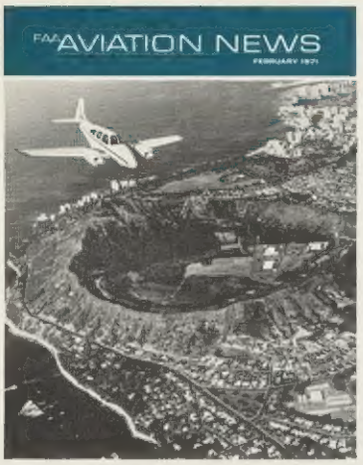
FAA AVIATION NEWS

FEBRUARY 1971



COVER

Hawaii calls—but it lies beyond a long open stretch of water. See page 8.

FAA AVIATION NEWS

DEPARTMENT OF TRANSPORTATION / FEDERAL AVIATION ADMINISTRATION VOL. 9, NO. 9

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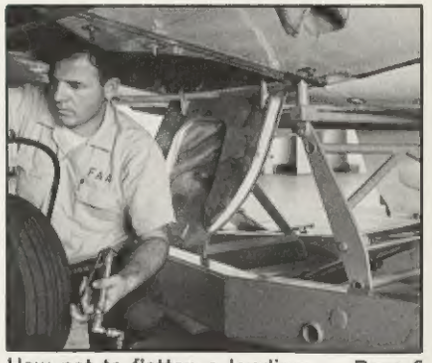

How not to flatten a landing. Page 6

John A. Volpe, *Secretary of Transportation*

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Wheelbarrowing

"Flying Farmhand's Almanac" Forecasts a Windy March and the Usual Rash of Windblown Runway Accidents

A wheelbarrow is a very stable vehicle, as any gardener can testify, when it is resting solidly on three points of support. But when you pick it up by the handles, the center of balance moves forward onto the wheel, and then it becomes quite unstable. You can turn it easily around the axis of the wheel or even pitch it forward. This maneuverability is of obvious advantage in the garden, but on the airport runway "wheelbarrowing" is a dangerous phenomenon.

Injuries have occurred and light aircraft have been racked up on the airport when pilots have inadvertently thrust too much weight onto the nose wheel. Loss of directional or braking control are the usual results and the aircraft may overrun the runway. Even when no apparent structural damage occurs, strain on the gear may set the stage for a subsequent failure.

Low-wing aircraft with steerable nose gear are most susceptible to wheelbarrowing, although this effect may also prevail with other tricycle gear aircraft. The phenomenon is most likely to take place on a day when crosswinds or strong gusts are present. It can occur either on takeoff or on landing—it is more common during the landing phase of flight.

Ordinarily, wheelbarrowing may be encountered if the pilot uses excess speed while making an approach in a full flap configuration. This kind of approach can result in touching down with little or no rotation. After touchdown the pilot may try to hold the aircraft on the ground with forward pressure on the nose wheel. Under these conditions, braking and steering are severely diminished, since the main wheels would not be carrying sufficient weight for normal brake response. Naturally, the hazard is greater in the winter time when snow or ice may render the runway pavement more slippery than usual.

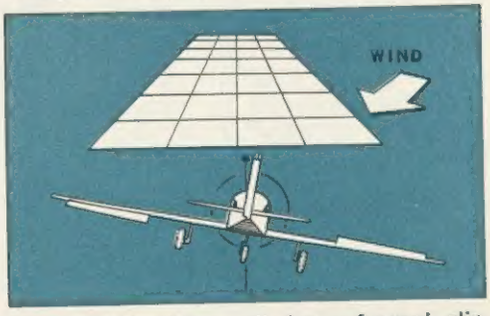
Under strong crosswind conditions the pilot has his choice of landing the aircraft crabbed into the wind (while maintaining a ground track aligned with the runway), or of slipping to a landing with the upwind wing lowered and opposite rudder held, while the aircraft fuselage remains aligned with the runway. The slip method of drift correction is favored by pilots because it accomplishes the desired results without presenting the need for a last minute directional change before touchdown. However, some wheelbarrowing accidents have occurred when this landing technique is used in a crosswind. On most general aviation aircraft the nose wheel steers when rudder is applied and, for this reason, such landings require careful rudder operation just before and during touchdown. (In some aircraft, the nose wheel is only aligned with the rudder when on the ground.)

Recovering from a wheelbarrowing condition depends on the remaining runway length, the type of aircraft, pilot skill and other factors. If the aircraft is not pivoting, and there is enough remaining runway, without obstructions, a go around is usually the best suggestion. If this is not feasible, close the throttle and relax forward elevator pressure to aft of the normal position. This may lighten the load on the nose gear and return steering and braking to normal. If the flaps can be retracted safely during rollout, additional braking will be obtained on dry runways.

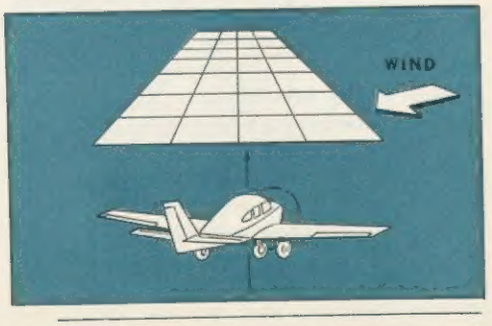
In taking off into a crosswind, the required use of upwind aileron may again result in sustaining the weight of the aircaft on one wheel just prior to leaving the ground. There is no problem, as long as the aircraft is not pushed forward onto the nose wheel as well. Probably the chief cause of wheelbarrowing on takeoff is the tendency of some pilots to hold the aircraft onto the ground (with forward control pressure) in order to build up a faster than normal ground speed before rotating—in order to assure sufficient flying speed to be able to handle strong gusts once airborne.

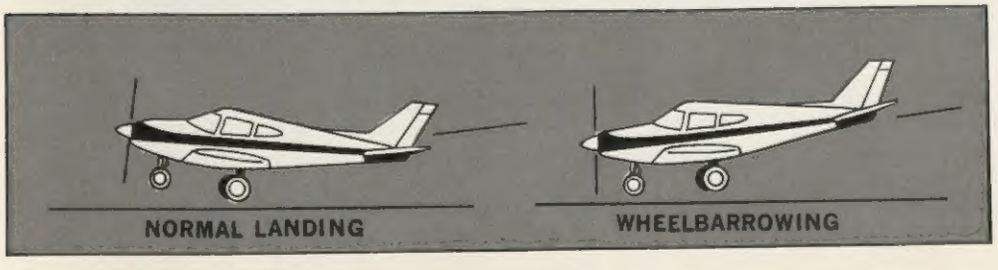
The experienced pilot learns how to obtain adequate takeoff speed while keeping the weight solidly on the main gear. Accidents around an airport, however minor, are painfully public and do not enhance one's image as a professional. ■

(A review of approach and landing techniques is provided in AC 61-21, "Flight Training Handbook," sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The price is 70 cents.)



Crosswind landings call for a forward slip (above) with upwind wing lowered and opposite rudder, or crabbed approach (below) with aircraft angled into the wind and wings level. Hasty efforts to set wheels down in gusty conditions can lead to nosedown landing (left) and loss of directional control.





Winter Landings

Snow or Ice on the Airfield are Mutual Problems that Trouble the Pilot and the Airport Operator. What Remedies are in Sight?

That he could not find the airport was ridiculous. He had flown into it at least half a dozen times in the past year, and he could have sworn that with his eyes shut he could find that little patch of concrete with the red-roofed hangars alongside and the wrecked old P-51 sitting on the grass. Yet here he was, with his eyes wide open, circling in the clear blue sky like a homeless hawk, with nowhere to land. Every oblong patch he investigated turned out to be a plowed field edged with snow.

Everything looked different from the air, he was beginning to realize, after a snowfall. The old familiar landmarks were either eradicated or changed in shape. He gave up his aimless searching, picked up the railroad as it left the town headed south, followed it for exactly five miles, as the chart indicated, and then made a 90° left turn. He counted off the seconds, and then he spotted the airport directly ahead. At that, he decided, he was lucky, because the red roofs of the hangars as well as the runway had a coating of white, and the P-51 was practically buried. A quick call on UNICOM assured him that the runway was usable, and a few minutes later he was sipping hot coffee in the operations shack.

The Big Decision

Not all pilots who fly into small, snow-burdened airports for the first time are that lucky. Snow *is* a great obliterator of checkpoints, and an unplowed runway is about as hard to spot as anything you can imagine. But finding the airport is only the first part of the problem. Getting down on it safely may be a much more serious matter. A pilot needs to ask himself—and UNICOM—some pointed questions before attempting it.

First, *is the airport open? Are the runway boundaries discernible? Are there any markers to help overcome the whiteout effect? What kind of snow is on the runway?* (Soft, deep slush could trigger a nose-over accident; on a slick, crusted surface the braking action might be nil.) *What is the surface wind?* (Strong crosswinds increase the hazard on ice.) *How much help can he expect from the management when he tries to take off?*

Continuous winter operation is a subject of much concern to airport operators. The desire to remain open regardless of weather must always be weighed against the cost of the clearing operation. As a general rule, the smaller the airport, the more formidable mid-winter maintenance costs will be.

In an effort to attack the problems associated with snow and ice at airports, FAA recently joined with the Canadian Government in sponsoring a broad study of airport snow removal and ice control. The final report, to be available shortly, will be an all-purpose guide offering information and guidance for airport snow removal and ice control. It is designed for use at any size or type of airport in the snow belt.

One of the serious problems pinpointed by the study was the lack of information on the availability, effectiveness and cost of snow removal equipment and ice control agents, as well as a lack of standardization in the measurement of runway surface conditions with regard to the need for snow removal or anti-ice treatment. How much snow or ice is considered operationally safe varies tremendously from one airport operator to the next; a runway considered usable in one section of the county might be closed until plowed and sanded in another. In 1968 the Air Transport Association issued a "Snow Removal Handbook" in which they recommend plowing to begin with two inches of dry snow or one-half inch of wet snow, but their advice is by no means universally followed.

The huge cost of delays at air carrier airports calls for big equipment. Small airports try to get by with minimal equipment or the use of municipal plows.

None of the snow clearing machinery comes cheap. High-speed rotary snowblowers cost as much as $77,000 each. Low-speed snowblowers cost somewhat less than half that. Rotary sweepers, either self-propelled or towed, are used many places. Preceded by a snowplow they can efficiently remove snow during winter and may be used in other seasons to sweep dirt and debris from the runway.

The Economical Snowplow

On general aviation airports the most widely-used equipment for snow removal is a truck fitted out with a plow-blade. Obviously this is not the fastest means, but it is economical, since the truck doubles at other jobs the rest of the year. Where city-owned equipment that clears the streets is used on runways, snow-removal crews are not always alert to the pecularities of airports and they must be carefully supervised. In-pavement, or so-called "flush" centerline lights, require special care since they are not actually flush, but rise up to ½" above the runway or taxi surface and can be easily damaged with a snowplow blade or tire chain.

If these lights should be turned on while under a snowcover, small ice igloos are apt to form over them, making clearance doubly difficult. If a rubber-edged plow-blade is not available, the recommended procedure is to use a rotary broom over the lights (before they are turned on) to avoid damage.

Disposal of the tremendous bulk of snow from heavy or repeated snowfalls at an airport creates its own problem. At smaller air-

Left—where to put the snow is no problem when you have a powerful blower—and no adverse wind. Right—truck-plow operation may build up a massive mound alongside the runway which could become a safety hazard to aircraft after a thaw and freeze.

Cooling Power of Wind on Exposed Flesh Expressed as an Equivalent Temperature

Estimated wind speed (in mph)	Actual Thermometer reading (°F.)											
	50	40	30	20	10	0	—10	—20	—30	—40	—50	—60
	EQUIVALENT TEMPERATURE (°F.)											
calm	50	40	30	20	10	0	—10	—20	—30	—40	—50	—60
5	48	37	27	16	6	—5	—15	—26	—36	—47	—57	—68
10	40	28	16	4	—9	—24	—33	—46	—58	—70	—83	—95
15	36	22	9	—5	—18	—32	—45	—58	—72	—85	—99	—112
20	32	18	4	—10	—25	—39	—53	—67	—82	—96	—110	—124
25	30	16	0	—15	—29	—44	—59	—74	—88	—104	—118	—133
30	28	13	—2	—18	—33	—48	—63	—79	—94	—109	—125	—140
35	27	11	—4	—20	—35	—51	—67	—82	—98	—113	—129	—145
40	26	10	—6	—21	—37	—53	—69	—85	—100	—116	—132	—148
Wind speeds greater than 40 mph have little added effect.	LITTLE DANGER (for properly clothed person) Maximum danger of false sense of security.				INCREASING DANGER Danger from freezing of exposed flesh.			GREAT DANGER				

Source: NAVMED Bulletin 5052-29

The Wind-Chill chart explains why it sometimes feels much colder at a windy airport than the thermometer reading would indicate. 20° F with a 20K wind equals —10° F. Dress accordingly.

ports most of it is left beside the runway or taxiway, but care must be taken to see that the snow pile is clear of lights, and does not otherwise interfere with aircraft operation. If it is piled high at the ends or sides of the runway it can present a serious safety hazard. Piled snow can also freeze into an almost concrete-like mound—a dangerous obstacle for a skidding airplane.

A fairly recent innovation in snow disposal is the use of snow melting pits. The snow is dumped into a metal tank of heated water, and while there is a limit to the volume that can be handled, it does solve the problem where there is too much snow and too little dumping area. Installation of this equipment is fairly expensive, but once installed it offers a considerable price saving over the more conventional cartage by trucks, considering the cost of vehicle and driver.

Ice control is more of a widespread problem than snow removal. Ideally, snow should always be removed before it is packed into ice, but this is difficult at busy airports. Occasionally sleet or freezing rain creates an icy surface, but most ice results from compacted snow. Recommended means of dispersing it include the use of sand (sometimes heated), urea, and glycol, or some combination of the above.

Salt, the age-old standby for walks and driveways, is rarely used now at airports because of its corrosive effect on aircraft materials. The cheapest material, widely used at many airports, is sand. It does have a tendency to blow about unless it is "bonded" to the ice by some means, such as heating, or mixing with another agent like urea. There is also evidence that the use of sand on runways leads to excessive wear on jet engines and perhaps also on piston-type air craft.

Glycol, a liquid mixture of glycerin and alcohol similar to the anti-freeze used in cars, has been used with some success, although caution must be exercised in the quantity dispersed. On some types of runway surfaces, such as blacktop, glycol used in excess becomes quite slippery itself.

Urea as Anti-Icer

The ideal method of ice control is yet to be found. Urea is an effective chemical when temperatures are above 17° F. Synthetically produced, it can be used without introducing any detrimental effects to the aircraft or airport surfaces. Urea is a soluble granular material, similar to garden-type fertilizer. Urea can either be scattered on snow or pavement in its dry form or dilluted with water and sprayed. Farm spraying equipment, normally idle for the winter season, is sometimes borrowed for this purpose. (A fringe benefit to the use of urea is a luxurious stand of grass—or weeds—that pops up beside the runway next summer.)

Efforts are constantly being made to discover and develop better means of ice control. The Port of New York Authority and the USAF are presently conducting experiments at La Guardia Airport and Kincheloe AFB respectively with ice control products submitted by the chemical industry. The FAA will compare and evaluate the results of these tests and provide guidelines to civil airport owners and managers. FAA is also investigating the possibility of *heated* runways, although as yet they are not economically feasible.

Help from the FBO

The responsibility of the conscientious airport manager does not stop with the removal of snow and ice from his airport (or the ongoing education of the snow-removal crews.) He and the fixed base operator are usually busy helping pilots get their planes ready to fly, providing means of de-icing planes and pre-heating engines. A heated hangar can make a small airport very popular in winter. A goodly supply of isopropyl alcohol or some of the commercial de-ice agents for removing accumulated ice is also helpful. Engine pre-heaters range from sophisticated commercial heaters with blowers to the home-made rig of flexible pipe hooked to the fuel truck exhaust. Outlets for electrically heated dipsticks can be a big help.

At airports where pilots are expected to clear the snow from around their own planes, management usually loses some tie-down customers after a bad winter. Where labor is scarce, hangar-tenants may be offered a reduction in rent during the winter if they keep their own hangar entrances accessible. The heedless snow-plow driver who dumps his load around a plane or hangar door is the bane of many a harrassed airport operator.

Winter flying calls for special preparations. Extra time should be allowed for defrosting and checking the plane. A breezy airport is one of the coldest spots on earth (see accompanying Wind Chill Chart) and lack of warm outer garments for a patient plane inspection could result in a hasty and ill-advised takeoff. A loan supply of warm wraps for the chilly pre-flighting chores can be a lifesaver.

If a borrowed parka should inadvertently disappear in the throes of a winter storm it would almost certainly be returned come springtime, along with an added measure of good will. Pilots go where they are cared for.

Copies of the "Final Report, Snow and Ice Removal for Civil Airports" may be ordered from the National Technical Information Service, Springfield, Va. 22151. Send check or money order for $3.00. ■

INSPECTION AIDS 5

Series of articles on maintenance problems of general aviation aircraft.

Using an Inflation Needle on Tube-Equipped Tires Leads to (Unhappy) Surprise Landings

Needless Needling

The blue and white Colt floated down to the runway in a beautiful greased-on landing that was the envy of the observers around the coffeepot in the general aviation hangar. The next instant there was a scramble for emergency equipment, as the aircraft careened crazily to the right and slid off into a drainage ditch with a sickening crunch. The pilot and his passenger emerged unscathed, but shaking. The aircraft had to be towed away.

What happened? The nose wheel and right main tires were flat and damaged, but they did not appear to have blown out. On a gentle landing like this one, why should they, in any event? Unraveling the background of this strange accident took some patient detective work on the part of the GADO inspector.

The aircraft had arrived from the factory with tubeless tires, as is common with many light aircraft now being produced. Because of some persistent problems experienced with maintaining proper tire pressure, the original owner had tubes installed inside the "tubeless" tires. The installation had been accomplished in accordance with the manufacturer's instructions, and no further trouble occurred until some time after the aircraft changed hands.

Just prior to the accident, during the preflight check two of the tires had been found to be somewhat soft. The airport line boy was asked to inflate them to proper pressure, and he did so, using a standard inflation needle made for that purpose. Since the aircraft was equipped with wheel fairings, and the valve stems of the tubes happened to be hidden at the time of inflation, the boy was unaware of their existence, or of the damage he was doing with his needle. After takeoff, the punctured inner tubes slowly deflated.

It sounds like a freak, one-in-million-chances accident, but in point of fact, many light aircraft begin life with tubeless tires which later have tubes inserted. Placarding wheel fairings with this information is one means of avoiding ending up in a ditch. But taking the time to personally oversee tire inflation is probably the best means of insuring that an adequate cushion of air exists between you and your wheels whenever you set them down. ■

(Actual incident reported in General Aviation Inspection Aids Summary, 1970. (Page 142, AC-20-7G) Complete sets of these reports are available from the Superintendent of Documents, Washington, D. C. 20402. Domestic subscription is $3.00, foreign $3.75.)

FARs

STATUS of the FEDERAL AVIATION REGULATIONS

February 1971

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* Changes to individual airspace designations and airways descriptions, individual restricted areas and individual jet route descriptions are not included in the basic Parts 71, 73 and 75, respectively, because of their length and complexity. Such changes are published in the Federal Register and are included on appropriate aeronautical charts.

** Due to the complexity, length, and frequency of issuance, airworthiness directives, enroute IFR altitudes and standard instrument approach procedures are published in the Federal Register and are not included in basic Parts 39, 95 and 97. In addition, enroute IFR altitudes and instrument approach procedures are depicted on aeronautical charts.

Standard instrument approach procedures are published in the Federal Register by reference to FAA documents which are available for examination at the Rules Docket (GC-24) and the National Flight Data Center, in FAA Headquarters, Washington, D. C. and at FAA Regional offices and Flight Inspection District Offices.

Bring Them Back Alive

Once each year four outstanding air traffic specialists whose flight assists have been especially meritorious are selected to receive national recognition in the form of a Special Achievement Award and a check for $400 from the Secretary of Transportation, John A. Volpe. A brief account of each of the flight assists is related here, in part as a tribute to the admirable performance of the four award winners, but also in part as a caution to pilots against allowing a hazardous inflight situation to develop. All the persons involved in these four incidents landed safely, but it was much too close for comfort. Don't crowd your luck.

At Baltimore's Friendship International Airport, February 14, 1970, promised to be a gloomy day. The sky had been overcast all morning and by 11:30 it was snowing. It was a bleak scene that Donald C. Legge, the Approach Controller, looked out on from the tower. But it looked even bleaker still to the pilot of a Cessna 182, who was lost in the vicinity of Westminster, Md., 50 miles away. Locked in a solid overcast at 3,500 feet with approximately one hour of fuel left, the pilot of N3315R contacted Baltimore Approach Control with the information that neither he nor the aircraft was capable of flying IFR. He had about 100 hours in his logbook.

Legge immediately issued turns and headings to identify and locate the aircraft on his radar scope and determined that N3315R was one mile east of Westminster VOR. The pilot was advised of his position and given Baltimore weather. He requested assistance to land at Friendship.

Legge asked N3315R if he could fly a localizer course. The pilot's reply indicated complete unfamiliarity with the term (a localizer is a radio transmitter on the ground that provides lateral center line runway alignment). Legge now knew it was up to him to get the aircraft down safely and since the pilot had no localizer or glide slope receiver, Legge was left no choice but to bring him down with an ASR (Airport Surveillance Radar) approach. With radar he could determine the bearing of the aircraft from the runway and the approximate distance from the airport. He would have to continually elicit altitude information from the pilot to insure a safe angle of approach. For the next 20 minutes, Legge was both controller and flying instructor for the distraught pilot.

Legge explained ASR approach to the pilot and began issuing vectors and descent instructions. It soon became obvious on the radar scope that N3315R was having difficulty in making his turns and maintaining requested headings—a common problem when pilots first endeavor to fly with no visible horizon line to go on. The danger of banking too steeply or even rolling the aircraft over on its back is always present. To minimize the hazard, Legge advised the inexperienced Cessna pilot to skid his turns using rudder only. With his eyes glued to the target on the radarscope Legge kept up a constant patter of encouragement:

". . . N3315R, we're six miles from the runway, begin your descent now, just a gradual easy descent . . . 15 Romeo you started a left turn, now come back to the right . . . now just ease up on everything for a moment, then come back to the right. Good, good. Level it out for a moment at 1,500 feet, nice . . . now pick up your power—ah, make these turns easy, just use those rudder pedals, don't roll in that aileron at all, just the rudder pedals, good. Now hold a heading that is one five zero. Right. Now begin your descent again nice and easy, just give yourself about 300 feet a minute, good—hold that heading, one five zero. All right, you're sliding off to the right now, a little left rudder, just a gradual easy left turn. Fine. Real fine.

"O.K. Now, what's your altitude, 15 Romeo? 900 feet? O.K., that's good, you're in good descent. You're just a bit to the right edge of the runway but your heading is taking you back, so just hold that heading. Just keep that rudder pressure equal and keep that descent. O.K. You're starting to go left—a little bit on the right rudder, not too much, just easy. . . ."

"I've got the runway! This is 15 Romeo, I'm on the ground." The time was 11:49, just 14 minutes after the call for help had reached Donald Legge in the Friendship Tower. The snow was still coming down but the scene from the tower was much more cheerful that it had been all morning.

(Some of the gloom remained for the pilot of 15 Romeo, who was given a 30-day suspension of his pilot's certificate for attempting to fly VFR in IFR conditions.)

Donald Legge, a watch supervisor at Baltimore's Friendship Airport tower, won his flight assist award by expertly guiding an inexperienced VFR pilot out of the clouds during a blinding snowstorm.

Mayday! Mayday!" crackled over the receiver in the flight service station at Tallahassee, Fla. It was 4:20 p.m. of a quiet afternoon in December 1969.

The call came from a two-seater Navy A-4 Skyhawk jet trainer which had just hit a large bird while flying a high-speed, low altitude training mission. The canopy had ripped off, smashing vital flight instruments in the process, and now the wind was howling through the cockpit almost deafening the crew and scattering charts and equipment overboard.

The instructor pilot, who was seriously injured in the strike, had activated the dual ejection mechanism and ejected, expecting his student to follow. But the student's ejection mechanism had jammed, leaving him trapped in the aircraft and calling for help.

Gus Kosik, a specialist assigned to the Tallahassee FSS air-ground communications

Even with the miles of runway at Baltimore's Friendship Airport, a VFR pilot being radar vectored down through a snowstorm can put any controller to a test.

Tallahassee award winner Gus Kosik assisted the student pilot of a disabled Navy jet trainer to land safely. Kosik drew on his own flying experience in the area to give the Navy pilot landmarks that would direct him to the airport. None of the cockpit instruments were functioning, after a bird crashed through the canopy.

position, quickly established radio contact with the student pilot, an Australian Naval Cadet. The strobe line on the direction finder indicated the aircraft to be on a 50° bearing from Tallahassee. Additional DF information requested by interphone from Albany, Ga., FSS pinpointed the aircraft location near the western edge of Lake Miccosukee, 22 miles northeast of Tallahassee Airport.

Communications with the pilot were very difficult, since he was apparently distressed and upset. Kosik managed to calm him by talking to him reassuringly, and then was able to learn the nature of his emergency.

With the canopy gone and all directional instruments non-functioning because of cockpit damage, the student pilot had no idea of the heading of his jet or of the location of the nearest airfield. Concerned for his instructor, he was unwilling to leave the immediate area until he was reassured by Kosik that the downed pilot's position was known, and a search would be instigated immediately.

Since the jet was northeast and the sun was southwest of the Tallahassee Airport, Kosik, an experienced pilot who knew the area well, instructed the student to fly directly toward the sun, hoping to bring him over the city, from which point he might be able to see the airport. Fortunately the weather was clear, with good visibility. The trainer's progress was continually monitored with DF equipment. Within 10 minutes the pilot reported he had Tallahassee Airport in sight. He was cleared to land, touching down safely at 4:39 p.m.

Meanwhile local civil authorities had been alerted to start a ground and air search for the missing instructor pilot. They were joined by his student, who immediately after landing, jumped out of his jet and climbed aboard a patrol plane. Just as the last glimmer of daylight was fading, the unconscious Navy pilot was spotted in a clump of trees. A ground search party then located him and rushed him to a hospital in time to save his life.

Gus Kosik was commended for a timely and knowledgeable "assist" which may have saved the lives of both pilots. Their unit, Navy Attach Squadron 44, awarded the Tallahassee FSS their Squadron Plaque, accompanied by an official letter of commendation.

The afternoon was unusually brisk for a late spring day in Montana, when Apache Airlines Flight No. 4 departed Havre, near the Canadia border, for Great Falls Helena, and points south. The converted DeHaviland Dove carried ten passengers and a crew of two. The weather worsened rapidly. By the time Apache 4 neared Great Falls the city was surrounded for miles by a storm area, and the pilot decided to continue on to Helena without landing.

But the storm extended south to the Montana capital city, and enroute both of his generators failed, knocking out virtually all of his instruments except the magnetic compass and altimeter. An attempt to land at Helena without instruments was hastily aborted and an anguished appeal for help was sent out as soon as the pilot, Ted Hunnington, was able to stabilize his aircraft—a difficult task in solid clouds with no instruments functioning. The non-pressurized aircraft climbed up to 15,000 feet before finding a narrow VFR breathing space between cloud layers.

Fortunately, the battery-supported radio and transponder continued to function, enabling FAA's air traffic service to establish radar contact with Apache 4 over a bend of the upper Missouri River called Holter Lake, about 40 miles southwest of Great Falls. James Hatley, air traffic supervisor on duty at Great Falls radar approach control facility at the adjoining Malmstrom Air Force Base, took over responsibility for bringing 12 frightened persons safely down through the clouds.

The time factor was critical. Apache 4 had originally informed him that fuel remaining was estimated at 55 minutes, but later revised the estimate to less than 30 minutes. There was no opportunity to vector the small airliner away from the storm area.

Knowing that a Twin Comanche piloted by his friend Jens Spring had just touched down at Great Falls, Supervisor Hatley contacted the pilot by radio before he could shut down his engines and asked him to go back up and lead the stricken aircraft down to a landing at Malmstrom. Spring, a veteran pilot and fixed base operator, immediately took off.

Hatley was now faced with the delicate task of vectoring Spring by radar to a rendezvous with Apache 4, still circling in a small VFR haven in the clouds at 15,000 feet, as quickly as possible without risking

Great Falls, Montana, award winner, James Hatley at the Radar Approach Control unit that enabled him to set up a mid-air intercept and to direct the landing of a crippled airliner.

Navy Skyhawk A-4, similar to ill-fated jet trainer which took a bird strike through the canopy, severely injuring the instructor and jamming his student's ejection mechanism. No time for a case of nerves.

Rugged terrain around the Missouri River in Montana, where the Apache airliner was caught on top of clouds without instruments, has mountain peaks over a mile high. The wrong scene for a low ceiling forced landing.

a mid-air collision. Daylight was fading, the ragged clouds were moving rapidly, and the minutes were ticking off in an inexorable procession.

Keeping his fingers crossed, Hatley asked the Apache to hold at precisely 15,200 feet while the Comanche flew past at 15,000. Visual contact was made; the Comanche circled back and drew up ahead of the left wing of Apache 4 at a prearranged airspeed of 140 knots. Then Hatley radar-vectored the two aircraft in close formation toward Malmstrom Air Force Base.

For the first part of the tense flight, the two aircraft remained at altitude, groping their way along between dense layers of clouds, fearful of losing contact with each other if they descended.

Fifteen miles out from the runway the inevitable descent began. Hatley hoped to bring the aircraft in for a straight-in approach, but this proved impossible, and finally it was necessary for him to order a 360° left turn, as the pair were passing through 10,000 feet. This was probably the most critical maneuver in the entire operation, as Jens Spring inadvertently speeded up and almost disappeared from Apache 4's view. (Apache 4 had been issued discrete transponder frequencies to indicate altitude, in the event of losing radio or visual contact, but little time remained for arranging a second rendezvous.)

For the final stage of the approach, Jim Hatley turned the microphone over to Tech Sergeant Charles Ferguson, manning the Precision Approach Radar position in the RAPCON (combined civil/military use radar approach control facility). The PAR enabled Ferguson to establish a proper glide angle for Apache 4 as well as line the aircraft up with the runway—luckily an enormous paved strip 200 feet wide and 11,000 feet long. Weather at Malmstrom was reported as ceiling 400 feet scattered, 700 feet broken, visibility 7 miles, light rain and fog.

Two miles from the runway threshold, Apache 4, still in formation with Jens Spring in his Comanche, broke through the overcast at about 600 feet. The pilot dropped his wheels onto the first available foot of runway, and a few minutes later an emotionally-spent dozen persons were clambering out of the airplane. Apache Airlines Flight 4 had terminated safely at Great Falls, thanks in large measure to Jens Spring, James Hatley and an effective air traffic control system.

Richard Torres of Honolulu Center received his award for taking the initiative to calculate the effects of adverse weather conditions on a general aviation aircraft on its way from the mainland. Upon being alerted to the danger, the pilot turned back, avoiding a forced landing in the ocean.

Volcano crater (extinct) near Diamondhead in Honolulu is the site of FAA Air Traffic Control Center responsible for air traffic from and to the West Coast, about 2,400 miles away.

Supervisor Hatley, of course, was one of the four FAA controllers to win national recognition from the Secretary of Transportation. Jens Spring received a citation from the Director of FAA's Central Region: *"In recognition of his timely and unselfish action in responding to a call for assistance . . . his efforts in the face of adverse (flying) conditions were instrumental in averting a possible disaster and in saving the lives of the crew and passengers of the Apache flight."*

At 2:50 p.m. local time N2091A took off from Oakland Airport and headed west across the Golden Gate of San Francisco. Owned by a Japanese export company with offices in the United States, N2091A was a Beechcraft 8S—a twin engine, ten-passenger aircraft with a normal cruising range of about 1,500 miles. The Beech was bound for Japan via Honolulu, a nonstop leg of nearly 2,500 miles. There were no passengers on board, only the pilot and copilot. Estimated flying time was 16 hours, and they carried extra fuel tanks to give them a safety margin of three and a half hours.

The weather ahead was clear and the sea below them perfectly visible as they flew along, ticking off the hours, relaxed in their seats. They had no way of knowing that, except for the exceptional alertness and initiative of a radar controller in Honolulu, hundreds of miles away, whom they would never see or even talk to, their aircraft would have found a watery grave in the Pacific long before the Hawaiian Islands came into view.

The controller was Richard Torres. A former Marine with ten years of experience in FAA's Honolulu Air Route Radar Traffic Control Center, Torres took over responsibility for the sector between Honolulu and the mainland at 9:40 p.m. Hawaii time. It was a clear, quiet night in January, with a favorable terminal weather forecast and no signs of trouble. It looked like a routine shift, no problems.

A few minutes later Torres was informed by Oakland Center that N2091A, a Beech 8S, would come under his control within an hour, at coordinates 30N, 140W—about halfway across the "pond." Noting the expected flight time, 16 hours, 33 minutes, and the estimated airspeed, 155 knots, he assumed the Beech was carrying adequate extra fuel on board.

But he began to worry a little when he recalled that earlier in the day a C-124, a military cargo aircraft, had encountered some difficulty en route after departing the San Francisco Bay area and had landed at Honolulu with minimum fuel remaining. Torres managed to locate the pilot by telephone and learned that the source of the trouble was strong headwinds: the average wind factor was computed at minus 55 knots throughout the flight.

Now he really had something to worry about. An adverse wind of 55 knots could bring the Beech's groundspeed down to as low as 100 knots which, according to Torres' calculations, meant a total flight time of at least 21 and a half hours. Did they really enough fuel?

Since N2091A was still well beyond his radio range, Torres contacted Oakland Center and suggested that the aircraft be advised of the adverse wind situation encountered by the C-124. Shortly thereafter, he learned that the Beechcraft had executed a 180 and was headed back toward Oakland, where it landed safely.

Eventually the aircraft was ferried safely across the Pacific without any contact ever being established between its pilots and the radar controller who, on his own initiative, had made their safety *his* business. But his vigilance was well observed and rewarded by the Air Traffic Service.

M.W.

Unsuspected Flight Objects

All manner of unusual constructions are being thrust up into the airspace in this day of engineering wonders. St. Louis Arch, above, is 630 feet high. Pilots depend on FAA for fair warning.

It is not very often that a low-flying airplane runs into a railroad train but if the train is on a manmade embankment some 30 feet above the ground, situated less than a quarter of a mile from a small airport, a possible hazard to the navigable airspace exists, according to FAA, and the embankment may require distinctive markings.

Collision with obstacles near airports is one of the more serious causes of light aircraft accidents. Electric wires and poles, radio and television towers, and of course trees are typical examples, but these are by no means the only source of danger. Farm silos, fuel tanks, amusement park rides and tents, and even raised vehicular passageways (roads, bridges, canals, train tracks, etc.) are among the man-made structures which could present a little suspected threat to aircraft landing or taking off in the area.

In an effort to increase safety in airplane operations Part 77 of the Federal Aviation Regulations requires construction sponsors to submit notice in advance of building or alteration plans that may affect the navigable airspace. If the proposed construction is situated on an airport, or if it would exceed 200 feet in height, regardless of the site, prior FAA notification is required. Such notice is also needed for construction which falls into one of three other categories:

1. Near a large airport—within 20,000 feet of an airport having at least one runway longer than 3,200 feet, any structure whose height above the nearest runway would exceed one foot for each 100 feet of horizontal distance from that runway. Example: Airport X has two runways, one 3,300 and the other 2,000 feet. A building that would extend 160 feet above the smaller runway is to be built within 15,000 feet of it. This would exceed the 100:1 ratio and hence require prior notice to FAA as a possible hazard within the navigable airspace.

2. Near a small airport—within 10,000 feet of an airport having no runway longer than 3,200 feet, any proposed structure that would extend one foot above the nearest runway for each 50 feet of horizontal distance from that runway (50:1).

Note: If the proposed constructon would be built near a seaplane base with defined sealanes, the criteria for (1) or (2) above would also apply.

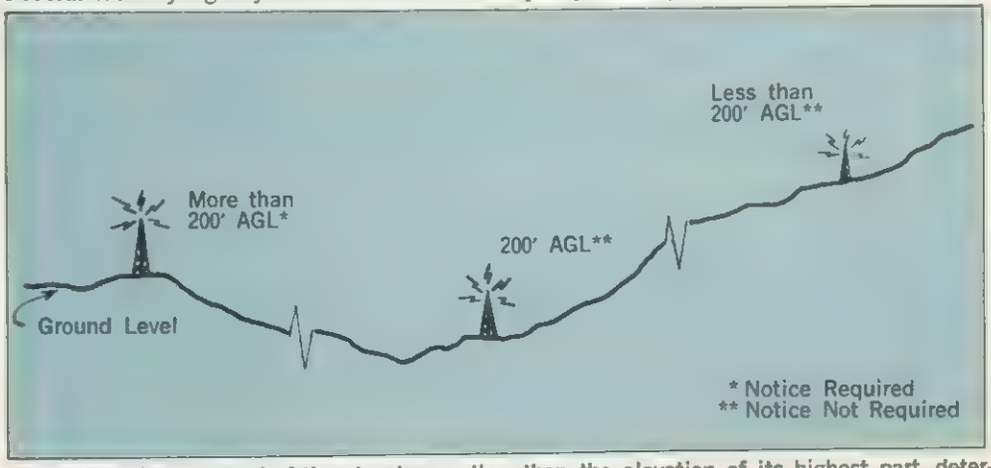
3. Near a heliport—any proposed structure within 5,000 feet of a heliport that would extend above the heliport surface more than one foot for each 25 feet of horizontal distance from the heliport landing area (25:1).

4. Highways, railroads, canals, etc.—any traverse way which would fall into any of the categories above, after its height is adjusted upward 17 feet for an Interstate Highway, 15 feet for any other public roadway, 23 feet for a railroad; and for a canal or any other thoroughfare not mentioned the height of the highest mobile objects that would traverse it.

For purposes of this regulation, a qualified airport is one available for public use and is listed in the "Airport Directory" of the Airman's Information Manual or in either the Alaska or Pacific Airmen's Guide and Chart Supplement, or is operated by a Federal military agency.

Notice, when required, must be filed with FAA at least 30 days before construction begins, or before the application for a construction permit is made. Advance notice is needed to enable FAA to protect the public right of freedom of transit through the navigable airspace, to recommend appropriate marking and lighting, to issue cautionary notices to airmen (NOTAMS), and to depict obstructions on aeronautical charts. The local FAA Air Traffic Service office has jurisdiction and will provide technical assistance to construction planners.

Volume XI of the Federal Aviation Regulations, containing Part 77, "Objects Affecting Navigable Airspace," is sold for $2.75 by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Advisory Circular 70/-7460-1, "Obstruction Marking and Lighting", is available from the same office for 60 cents per copy. Send check or money order, and use an order form if available for speedy delivery. ■



The height above ground of the structure, rather than the elevation of its highest part, determines whether prior notice to FAA is required before construction may begin.

Famous
FLYERS

Left—during the Thirties Roscoe Turner broke the transcontinental speed record seven times and won the Thompson Trophy three times. Above—Turner won races in both the Turner Special, left, and the Wedell-Williams Special.

A Lion in the Sky

The Age of Racing Bred Heroes and Headliners

Stunned murmurs spread through the 60,000 spectators crowded into the stands at the 14th Thompson Air Race in Cleveland as Roscoe Turner's silver *Meteor* flashed by *in last place*. Turner, the popular speed king of the air, had inadvertently cut inside a pylon and had to maneuver frantically back around it as other aircraft roared ahead. His chances for an unprecedented third-time victory looked dismal.

But it took more than a stroke of bad luck to put the fantastic Colonel Turner out of a race. He whipped his stubby racer around the pylons, virtually standing it on the wingtip as he banked for the turns. Hitting over 350 mph on the straightaway, he caught and lapped every other competitor twice before the finish flag signalled his extraordinary victory.

The year was 1939, and that checkered flag marked the end of an epoch, as well as a race. In the history of American aviation the decade of the Thirties was the golden age of speed flying. New records were posted and shattered so quickly that the gasping public could hardly keep up with the latest figures. But no one in that hectic decade had any difficulty identifying Colonel Roscoe Turner, a small town Mississippi boy who combined flying skill with imaginative publicity in a manner that engraved his image in the heart of all America. No one man of this period did more to kindle popular interest in aviation.

Born on September 29, 1895, Turner was eight years old when the Wright brothers made their first flight at Kitty Hawk. His father, a farmer in Corinth, Mississippi, expected what fathers often used to expect —that his son would take up the same career. But young Roscoe was fascinated with vehicles and speed. An early ambition to be a railroad engineer was squelched by his father as too dangerous. Young Turner promptly set his sights on a winged career, after catching sight of his first airplane near Corinth.

WW I gave him the chance to slip away from the conforming pressures of his native Corinth and started him off on a long and zany path through the record books of aviation. When the United States entered the war, Turner signed up as an ambulance driver, then wangled a transfer to the balloon corps as an observer. It was still a long way from being a pilot, but he was at last airborne and convinced that this was where he belonged. Life could only be enjoyed as long as it offered him thrills.

Already 23 years old when the war ended, Turner found his training as an auto mechanic not exciting enough. He formed a Flying Circus with a partner and toured the south doing stunt flying with such feats as "Falling a Mile in Flames". This was a nose dive rigged with smoke sticks to simulate a burning plane. Also featured was wing walking and various airplane acrobatics.

By this time the skies of America were thick with daredevils, and Turner concluded that it would take more to draw and please crowds than just dazzling them with breathtaking aerobatics or brushes with death. He practiced until he was one of the best stunt pilots in the business, but he also worked on developing an out-of-the-cockpit reputation that caught the fancy of newspaper reporters and made the Turner name a big draw wherever he went.

In 1928 Turner shifted his scene to Hollywood. Tall, tanned, and dashingly handsome, Turner had all the natural attributes of an idealized stunt pilot. For added effect he sported a sky-blue flying jacket, Sam Browne belt, fawn-colored breeches and high boots, in place of the familiar grease-stained over-alls of ordinary pilots. Jolly and friendly, fond of being surrounded by admiring crowds and fainting women, he invariably "played to the house." He flew movie stars and other celebrities around the country under dramatic or mysterious circumstances. He outdid the showiest of his contemporaries by carrying a pet lion cub, the famous Gilmore, in his cockpit. Turner's abounding personality so caught the public eye that he was used as the model for Zack Mosley's "Smilin' Jack" comic strip. Parading along Hollywood Boulevard with his lion Gilmore padding behind on a leash, his waxed and pointed moustache gleaming in the sun and his jaunty cap squashed "fifty-mission" style, Turner was a publicity man's dream.

He acquired the rank of Colonel in the National Guard of three states. The occasional charge of "phoney" didn't bother Turner at all. He considered it good advertising.

But a flair for publicity was not Turner's only talent—there was nothing phoney about the flying records he set and broke. On his first try, in 1930, he flew from New York to Los Angeles in the record time of 18 hours, 43 minutes. Two years later, he shaved an incredible six hours off that time, and the next year he again beat all other contenders for the cross-country championship by flying from Burbank, California, to Floyd Bennett Field in New York in ten hours, 5 minutes. In that single decade, 1930 to 1939, Turner broke the transcontinental record seven times. He also took part in the mammoth 11,000-mile race from England to Australia in October 1934, placing second. He flew a Boeing 247, and all-metal low-wing aircraft considered by some to be the first modern airliner.

Long distance records were not his only target. The annual Thompson Trophy Race (100 miles around pylons 10 miles apart) was the coveted prize for speed kings of the air, and Turner won the trophy three times, (the only man to do so), in 1934, 1938, and 1939. The last win earned him $16,000. He also won the Henderson Trophy as America's "No. 1 Speed Pilot" three times in that decade and was given a gold medal as America's "Premier Pilot" by the International League of Aviators.

In 1937 he established a new world speed record of 289.90 mph at Detroit—only to see it bettered a few weeks later in Germany when I. H. Wurster was clocked at an astounding 379.6 mph.

As the decade came to an end and the world drifted toward WW II, the advances in engine and airframe designs gained from speed and distance trials were incorporated into military and commercial aircraft, and the heyday of aerial racing abruptly ended. Not waiting for the cheers to die away, Turner moved on to Indianapolis to found the Roscoe Turner Aeronautical Corporation, a flight school and sales office at Weir Cook Airport. With the entry of the United States into the war, Turner became an instructor pilot for the Army Air Corps, helping to train more than 3,500 fledgling aviators. In 1952, by an Act of Congress he was awarded the Distinguished Flying Cross for pioneering in speed flying.

Advancing years failed to slow him down. He continued to fly the newest and fastest military jets until well into his sixties. He also co-authored a two-volume book with John H. Dubuque, a CAA inspector, that was a complete flight trainer, *Win Your Wings.*

He died after an illness on June 23, 1970, survived by his widow, Madonna Turner, who continues to run the corporation and the museum dedicated to his memory.

Roscoe Turner's unrivaled success as an aerial showman may have overshadowed his very real contribution to the development of fast, reliable aircraft. But the courage he showed in brushing wingtips with disaster on hundreds of occasions to gain a split second over a racing opponent was of the highest order. ■

In addition to being one of the most skillful of all stunt pilots, Roscoe Turner also had a natural flair for show business. With his waxed mustache, sky-blue flight suit and lion cub flying companion, he drew huge crowds.

Pilot BRIEFS

■ AIRCRAFT STROBE LIGHTS produce a high intensity flash that can be annoying to other pilots when you taxi near them.

It is good practice to turn off your strobe lights when on the ground. Also, the strobe should not be used when flying IFR through clouds or other obscuration. The flash is reflected by the myriad particles of moisture in the air, and this repetitive backscatter gives some people "flicker vertigo"—a dizzy sensation that can interfere seriously with instrument flying. The Federal Air Surgeon says about ten percent of the population are susceptible. On all other occasions, IFR or VFR, day or night, strobe lights may be helpful in making your presence known to other pilots.

■ FAA's THIRD ANNUAL Government/Industry National Aviation System Planning Review Conference will be held at the Twin Bridges Marriott Hotel in Washington, D. C., April 27-29, 1971. Agenda items under consideration include aviation system capacity, new technology and competing technologies, airport certification and airport access, navigation and landing systems satellites, financing the aviation development, and the priorities of the FAA 10-year plan. Prior registration may be made by sending the name, address, company or association and area of interest to FAA, Attention HQ-200, 800 Independence Avenue, S.W., Washington, D. C. 20590. Registration fee is $5.00. Registrants will receive all conference documents, including the 1971 National Aviation System Policy Summary and Ten-Year Plan.

■ COCKPIT RADIO DEVIATION. The presence of any radio equipment in the cockpit, including portable radios, in use or otherwise, may bring about magnetic compass error. Pilots are cautioned against the use of a temporary or portable radio without first determining its effect on the behavior of the magnetic compass.The receiver should be tuned through the low, middle and high range frequencies while observing the compass needle. The compass calibration card should indicate all compensation steers clearly.

■ FLY MORE, PAY LESS. Insurance companies are now offering safe pilot discounts on aircraft accident policies for pilots (private license or better) who have an accident free record for several years and whose proficiency is certified annually by FAA examiners. Discounts may be limited to single engine aircraft primarily used in business or pleasure. Statistics point the finger to the infrequent flyer as the most accident prone.

■ TOURIST TURNSTILE. A recently completed international arrivals area at Dulles International Airport, near Washington, D.C., has doubled the peak hour handling capacity of the ultra modern jetport from 300 to 600 passengers per hour. The new facility was built to accommodate the thousands of international travelers seeking to avoid arrival delays by flying directly to and from Dulles from overseas points.

John Baker Named Head of General Aviation Affairs

General aviation's new man in Washington is John L. Baker, a Nebraska-born trial lawyer who began flying at 15 and soloed after two hours of flight instruction. He is to be FAA Assistant Administrator for General Aviation Affairs, replacing Robert V. Reynolds, now Deputy Director of FAA's Southwest Region in Fort Worth.

An Air Force veteran of the Korean War, with more than 2,000 hours of jet fighter time in his logbook, Baker is the recipient of a Distinguished Flying Cross and numerous other military honors. He has a commercial license and is becoming current in a variety of general aviation aircraft.

Baker is deeply concerned over the weekly toll of serious general aviation accidents reported to him. He believes that manufacturers have made their aircraft much safer in recent years, but he refuses to accept the idea that flying is inherently dangerous, or that some accidents are inevitable.

His plans for improving the general aviation picture in the future include placing greater emphasis on pilot education, making pilots more aware of the many types of assistance available to them from FAA, both in the air and on the ground, and possibly certain changes in Part 61 of the Federal Aviation Regulations to make night flying and additional instrument practice a part of the private pilot certification.

Baker's Deputy Assistant Administrator for General Aviation Affairs is William M. "Tuck" Huey.

New Publications Out on Airport, Aircraft Maintenance

A plan for removal of disabled aircraft from busy airports, a handbook on Inspection Authorization, and an information pamphlet on the certification of airframe and powerplant mechanics are among recent publications of the Federal Aviation Administration of the Department of Transportation which are of interest to general aviation.

Details of a recommended Aircraft Recovery Plan to deal quickly with the aircraft that slips off a runway, has a landing gear collapse or encounters some other emergency on the ground are provided in the advisory circular, "Removal of Disabled Aircraft," (AC/5200-13, free).

The circular, prepared by FAA's Airports Service, contains photographs and illustrations of methods and equipment used or available for the recovery of all types of aircraft, from small general aviation types to the Boeing 747.

"Handbook and Study Guide for Aviation Mechanics Inspection Authorization" (AC 65.95-2B, free), offers guidance to persons authorized to conduct annual and progressive inspections and approve major repairs or alterations of aircraft.

While the handbook is primarily intended for mechanics holding or preparing for an Inspection Authorization, it may also be useful to aircraft manufacturers and certificated repair stations who have these privileges. This publication cancels out AC 65.95-2A dated April 15, 1969.

"Airframe and Powerplant Mechanics" (AC 65-11, price 20 cents) answers the questions most frequently asked about FAA certification of aviation mechanics. The pamphlet also contains the addresses of General Aviation and Air Carrier District Offices as well as Flight Standards District Offices.

"Removal of Disabled Aircraft" and "Handbook and Study Guide for Aviation Mechanics Inspection Authorization" are available without charge from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

"Air-frame and Powerplant Mechanics" is sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Send check or money order; use an order form, if available, for faster handling.

NOTICE TO SUBSCRIBERS

The January 1971 issue of FAA AVIATION NEWS was combined with the December 1970 issue. The combined issue went to press in December but was not distributed until January. Regular monthly publication will be resumed with the current (February) issue.

March Symposium Will Update Pilots, Public on Turbulence Findings

The world's leading experts in the field of aviation turbulence are being invited to an FAA sponsored international symposium on this subject, to be held at the Marriott Twin Bridges Hotel, in Washington, D. C. March 22-24, 1971.

Concorde test pilot Brian Trubshaw, Captain Bob Buck of TWA, Flight Operations Chief Paul Soderlind of Northwest Air Lines and NASA's Neil Armstrong are among the invited panelists whose discussions will cover wake turbulence, clear air turbulence, wind shear, thunderstorms and turbulence plotting. Government agencies, industry, airlines, military and general aviation will particpate.

The symposium is open to the public. All persons wishing to attend, participate or exhibit products should contact FS-60, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20590. Phone (202) 426-8241.

"Angel Derby" Air Race Will Cover 2,700 Miles from Ohio to Nicaragua

Entries are now being accepted for the Angel Derby, an international race for women pilots, scheduled for May 3-6. The Derby, which offers $5,000 in prizes, will cross the borders of 5 countries and 7 states in a 2,700-mile course between Columbus, Ohio and Managua, Nicaragua.

This annual air classic, which drew 129 women pilots in 1970, is organized by the Florida Women Pilots Association. Winning times are based on handicapping of aircraft by horsepower. Stops are scheduled at Evansville, Ind.; Memphis, Tenn.; Shreveport, La.; Austin and McAllen, Texas; Mexico, Guatemala, and El Salvador, with terminus in Managua.

Information kits with applications for entry are provided at the cost of $1.00 by Mary Barrer, General Chairman, 12920 Oleander Road, North Miami, Florida 33161.

More "Wheels" for Visiting Pilots

The 180 small airports in Idaho which have been devoid of ground transportation for transit pilots now offer courtesy car service at a modest charge, thanks to the leadership of the Idaho State Aeronautical Department.

The Department recently acquired a fleet of surplus automobiles, had them repaired largely with volunteer help, and established "carports" at small airports throughout the state, in cooperation with local airport operators. Distinctively marked, the cars are available only for travel between the airport and the nearby community.

FAA Aviation News welcomes comments from the aviation community. We will reserve this page for an exchange of views. No anonymous letters will be used, but names will be withheld on request.

• Up in Arms

I am writing this letter not only for myself but for my colleagues in arms as well.

I am presently a helicopter instructor pilot at the Army's Primary Helicopter Training Center. I have served in Vietnam where I have flown in and under many difficult conditions. Our mission now is the training of the best helicopter pilots in the world, for combat as well as stateside duty. We have been very efficient and professional in our training.

I would like to know why the FAA will not recognize the competency of the Army helicopter instructor pilot and grant him a CFI helicopter rating after passing the written examination. It is expensive to rent a helicopter in order to demonstrate one's proficiency to an FAA check pilot.

W. O. John R. Collins
Mineral Wells, Texas

The decision of the FAA to require practical tests for military flight instructors seeking Flight Instructor Certificates was not based on the assumption that they are not competent as flight instructors. It is based on the great difference between the average civilian student pilot and the military students whom he normally instructs.

It is usually necessary for the instructor to analyze the background and competencies of the civilian student and to tailor his instructions accordingly. Also, the civilian flight instructor must be prepared to develop lesson plans and syllabuses of training appropriate to each of his students, unlike the military instructor who conducts preplanned lessons and courses.

FAA inspectors regularly conduct flight instructor practical tests in military helicopters, which Army flight instructors use without personal expense with permission of their commands. We suggest that you investigate the possibility of such an arrangement.

• Overlapping Traffic Areas

What are the limits of an airport traffic area at tower-controlled airports which have less than ten miles separation between the geographical centers of the airports? What operating procedures should be observed when an arriving or departing aircraft must traverse the traffic area of a second airport in order to reach the destination airport? I refer specifically to the situation that exists between Palwaukee Airport and Glenview Naval Air Station on the north side of O'Hare in Chicago.

Edmund C. Iwanski
Des Plaines, Illinois

The lateral limits of an airport traffic area are the same regardless of the proximity of other tower-controlled airports.

Where airport traffic areas overlap slightly, as in the case of Palwaukee and O'Hare, traffic operating to and from one of these airports may not enter the airport traffic area of the other airport unless authorized by ATC. However, where two tower-controlled airports are in such close proximity that each lies within the other's airport traffic area, as in the case of Palwaukee and Glenview NAS, traffic using one of the airports must operate within the other's airport traffic area.

In such a situation, the pilot of an arriving aircraft should contact the tower controlling his destination airport well in advance of his arrival in order to determine if any special procedures are in effect for arriving traffic. Likewise, prior to departing such airport, the pilot should telephone or visit the tower supervisor to determine what departure procedures are in effect at the airport.

• The Proof Hertz

The basic purpose of FAA AVIATION NEWS is most praiseworthy, but the proofreading is the poorest I have ever seen.

Do you really mean that the FAA is going to provide 200 channels for VOR/ILS NAVAIDs using 50 mHz spacing rather than 100 mHz spacing? Come on! Mathematics is mathematics.

W. W. Dahlbert, M. D.
Burton, South Carolina

Don't blame the proofreader for this one. Even those of us who work full time with radio frequency matters slip up occasionally when using the relatively new terms, kilohertz and megahertz. Try this problem again using kHz instead of mHz and it will come out right.

• Rough Day at Albany

We would like to thank the controllers at Albany (N.Y.) County Airport who vectored us around thunderstorms for forty-five minutes after our Cessna 172 lost most of its power while on an IFR flight plan through their area. They were able to provide radar service for us under extremely difficult conditions (we had no transponder) and keep us at unusual altitudes for an approach to Albany in our malfunctioning bird. They really did a splendid job and we are very grateful.

Dr. and Mrs. Benjamin H. Gorsky
Cleveland Heights, Ohio

• FSS Goes the Second Mile

Although there may be little opportunity for today's FAA specialist to serve in a physically adventurous manner, it should be clear to anyone who flies that the range of service has expanded incredibly and that the quality must be at least as good as ever.

The other night I needed information regarding instrument approach plates in the West Central section that I could not find elsewhere, so I telephoned Boston FSS. Specialist Gene Hosack tried to help me but simply could not locate what I needed after a diligent search. An hour later, he phoned me at home with exactly what I wanted after tracing me through the number of my plane—even though I had moved.

This response on Mr. Hosack's part took considerable effort—and a whole lot of compassion. It must be reflective of the quality of the service offered routinely by Mr. Hosack —and the great bulk of his fellow FSS specialists.

Robert F. Jasse
Woburn, Mass.

• Lawson's Levitation

Your July issue of FAA AVIATION NEWS stated that "Ham & Eggs" Lawson founded "Lawsonomy" whose headquarters are still in Detroit. I would like to know the connection, if any, with the University of Lawsonomy which has a landing strip north of Kenosha, Wisconsin, Airport (Milwaukee Sectional) on Interstate Highway 94.

M. Robert Carr
East Lansing, Mich.

The facility you referred to, a private airstrip 2.8 miles southwest of Sturdivant, Wisconsin, was registered on December 21, 1959, to the University of Lawsonomy through Mr. E. L. Bates, who listed himself as a member of the Board of Directors of the University. The facility was originally listed as having one north-south sod strip 2690 feet long. Mr. Bates, then of Kansas City, Missouri, amended the reregistration of the airstrip to 1600 feet of runway in 1965 and in 1968 changed his address to Colorado Springs, Colorado. The airfield has been unreported since November of 1969 (yearly registration forms sent out by FAA have not been returned since that date).

• WASP Flew Jets

I believe you will find that the first woman to enter the jet age was a pilot not a passenger—Ann Baumgartner Carl, who was a WASP assigned to Wright-Patterson for experimental test flying during World War II. She flew P-51s and the Bell-59. She was Ann Baumgartner then and later married Bill Carl, an aeronautical engineer. They now live on Long Island.

Check the Smithsonian.

Jean Pearson
Grosse Pointe, Michigan

The Smithsonian concurs.

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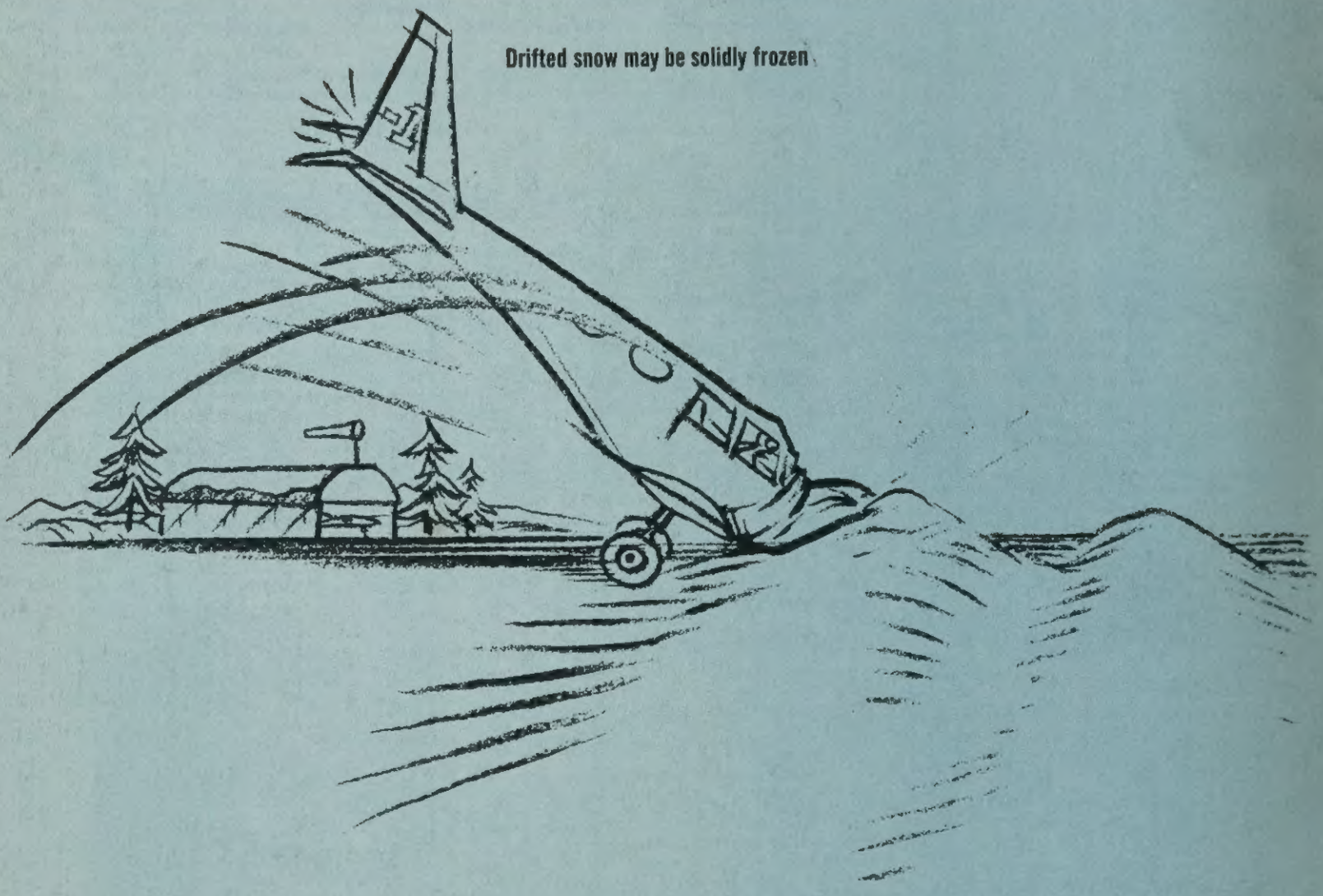

Osborn

Take care it doesn't push your nose in

Suggested by D. E. Caris
Allentown, Pa., GADO #3